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"Wal," said the boy, "if you goes by what ma says, I's four ; but if you goes by the fun I's had, I's a hunderd !"

The mere consciousness of living is pleasurable ; the entire group of sensations known as "bodily" is exhilarating ; the special sensations, in proportion as they develop on the psychical side, become transcendently interesting ; the deep delight of the fundamental emotions, the glow of psychical satisfaction which attends the capture of the Q. E. D., the culmination of psychical happiness in the inspirations of genius are all good, and most of them come in some degree into the experience of all.

But what are they in comparison with the abiding sense of justice, of honor and of duty, which sooner or later become, to some extent at least, integral parts of every individuality ? Despair itself, when not purely an expression of some organic disturbance, is but a confession of failure of the realization of one's ideal ; *happy to have had that ideal !*

Whatever the outcome, struggle itself is joyous ; from it comes sometimes the defeat which rouses the latent residue of energy necessary to a future success ; and sometimes the sweetness of victory—not necessarily the egoistic exultation in the overthrow of an enemy (although this also counts) but the finer conquests which belong to the higher ranges of our complex cosmic-human nature—the ascendancy of sweet reason—the full flowering of *the ethical man*.

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NATURAL LAW, ETHICS, AND EVOLUTION.

THE discussion to which the paper of Dr. White is an admirable contribution, seems to me to have reached a stage where it is just as well to supplement controversies over the precise meaning or the bearings of Professor Huxley's address, by a few independent efforts, however imperfect these may be, to deal with the questions. (1) Whether the "ethical process" is a "part of the cosmical process ;" and (2) whether it stands in a relation of opposition or of harmony to the tendencies of this cosmical process ; and (3) finally, in case the relation of the "ethical process" to the "cosmical process" is one of opposition, what the source of this opposition is. The following paper is a sketch of such an effort.

The student of nature is trying to reduce observed facts to universal laws. In so far as he can do this, he succeeds in what certain recent students of the Logic of Science (*e.g.*, Mach) have called the description of the facts. The fundamental principle of empirical science is, that you can only tell what a given fact is, in so far as you can describe its nature in universal terms,—*i.e.*, in terms which identify this nature with the nature of other facts. Were all the facts of our experience single, discontinuous, unrepeated even in memory, and as different from one another as tones are now different from odors, or as brightness is different from swiftness, then we might all of us experience the world; but we could none of us describe in the least what it contained. This world might even be allowed to have *one* sort of uniformity in it,—*viz.*, it might be as richly delightful a world as you please, from moment to moment; but it would be not only an uncomprehended, but an unreported world,—a world of whose facts no record could be made. On the other hand, a world where experience can be recorded, reported, described, has two characters: First, there are in it facts whose similarities can be noted,—*i.e.*, there are “wholes” or “groups” of phenomenal elements, which are alike in some respects; and, secondly, the noted similarities are such as permit you, in terms of these similarities themselves, to define certain complex groups of phenomena, as “having the same structure,” or as “being built up according to the same rule,” or as “exemplifying the same law,” so that at least some of the details of each fact noted are “explained” by this law. To “explain” a given phenomenal detail, noted in your experience, say *d*, by the “natural law” which is said to “require” its presence, or to “make it necessary,” is simply to point out that the phenomenon *d* is part of a larger whole, a “fact” in the substantive sense,—*viz.*, *abcd*, and that this “whole fact,” *abcd*, has a structure, or “make-up,” a describable “build,” a “typical constitution,” which other whole facts of experience, *viz.*, ABCD, or *pqrs*, also exemplify, while this constitution is such as to involve the presence of *d* in case *a*, *b*, and *c* are present, and in case the whole is to preserve the aforesaid typical structure. You then say that, since the whole fact *abcd* resembles ABCD, or *pqrs*, not in its details as such (*i.e.*, in its contents), but in their structural relations,—*i.e.*, in the general type or build of each of these whole facts,—therefore the same rule or law which defines D by its relations to the other phenomena, A, B, C, of its own group, and which defines *s* by its relations to the

other phenomena, p , q , and r , of the group $pqrs$, can be realized or exemplified when you pass to an abc group, only if there is present a fourth phenomenon, d , which is such as to have the same structural relation to abc in the whole fact whereof abc and d are parts, as was present in case of the facts ABCD and $pqrs$.

My statement is abstract. But the principle is simple. It means that you cannot describe whole facts,—*i.e.*, that you cannot report, record, verify, or comprehend their structures, without conceiving the phenomenal details of these facts as subject to laws,—*i.e.*, to rules of structure, which are exemplified by other whole facts of experience as well as by the fact that may be, at any time, under discussion. The “uniformity of nature” is thus the *conditio sine qua non* of the describability of her facts. And on the other hand, to report whole facts is, to some extent, to explain their details. It is, therefore, not one thing to describe facts, and another thing to explain the elements that enter into their constitution. But, *in so far as you describe the wholes, you explain the parts of these wholes*. There is, indeed, no *a priori* principle that every experience which may occur to anybody is describable at all. Anybody’s experience might be, to any extent, apparently or really unique. In so far as it was unique, science could only ignore it, as being a “private” or “personal” experience. But if an experienced fact is to be described, it must be, in some respect, capable of identification with other facts. And different facts can be descriptively identical only as regards their structure. But if two facts have the same structure, then their details, the elements of which they are made up, stand in relations to one another which exemplify this structure. Any one element, then, will appear in each fact, as explained by and conformable to the law which links it to the other elements of the whole fact of which it is a part. The presence in the world of various whole facts that exemplify the same structure, is then a condition of the describability of each of these whole facts. But the describability of any whole fact involves what appears as the explanation of the parts or elements of this fact by the law or structure of the whole to which they belong. In brief, the structure actually common to many facts also appears as the law which explains or necessitates the constituent elements of each fact.

Nature then, *in order to be describable*, has to be viewed or conceived as such that the details of every natural phenomenon shall be “subject to,” “determined by,” or “necessitated by,” the laws which describe the structure of the phenomenal wholes of which each

detail is a part. If any given natural phenomenon, itself a mere fragment (*e.g.*, the petal of a particular flower, the tooth of a carnivorous animal, the total phase of an individual lunar eclipse), is to be conceived as a part of a certain whole, then this part must be *conceived as if* "explained," or "necessitated," by the law which describes, in universal terms, the whole "thing" or "process" of which the fragment is a part. And this is what is meant by the "necessity" of natural events. Natural necessity is an incident of the conceived describability of natural phenomena when grouped in whole facts.

That natural phenomena shall be *conceived as* necessary, or as subject to rigid law, and that the "cosmic process" shall be viewed as one where "mere necessity reigns," is therefore not a belief capable of any but a relatively subjective and human interpretation. Experience comes and goes in its own way. No mortal has ever "experienced" the absolute necessity of any cosmic process whatever. Chance, as Mr. Charles S. Peirce has well observed, streams in through every channel of our senses. Trust then to mere experience, as it comes to any one of us, and such experience can never prove that there are "cosmic laws."

But natural science depends not upon merely accepting, but also upon reporting, and upon recording, the phenomena, upon comparing notes, upon trusting nobody's private experience as such, upon a process, then, of publicly verifiable description of facts. This process—not now the cosmic process, but the process of description—involves noting uniformities, and depends for its success upon our ability to note the latter. The describable uniformities are structural uniformities,—*i.e.*, those expressible in terms of universal "rules of structure" or "laws." The law of structure of a given whole, be this whole a "thing" or a "process," a coexistent whole, or a whole of successive elements, appears, in our slowly formed, socially communicated, and gradually verified scientific conceptions, as determining the necessity of every element of any fact by virtue of the whole to which the element belongs. The only further assumption upon which the doctrine of the *objective* universality of rigid cosmic laws, as distinct from the foregoing subjective and human need for such laws, depends, is the assumption which I have elsewhere examined at some length, *—viz., the

* Cf. the *Philosophical Review* for September, 1894, and "The Spirit of Modern Philosophy," Lecture xii. on *The World of Description*.

assumption that, in our human experience, *only* the relatively describable data stand for the external or physical world *as such*,—the endless indescribabilities of our experience, the “chance” of Mr. Peirce’s account, being viewed, by scientific thinking, as standing for the merely “individual” or “internal” element of our experience, or for the limitations of the individual point of view. For science, as I have just pointed out, is an essentially social affair. The described “cosmical” fact is a fact which others are conceived to be capable of verifying besides the observer who now describes. And as only the describable aspect of our experience is communicable to others for them to verify, and as only the verifiable is, scientifically speaking, to be viewed as “cosmical” at all, it follows that, while private experience is full of what seems to be chance, we all have come to regard the cosmical process as one subject to the most rigid law. But one must carefully bear in mind this genesis and meaning of the whole concept, both of necessary natural law and of the cosmical processes themselves, in any comparison of the “cosmical process” with the “ethical process.” Hence our present need for this rather technical summary.

On the other hand, the conception of moral laws, by which given acts are to be judged, and of “ethical processes,” such as what is called “Progress,”—processes which involve a gradual approach towards a conformity of given facts to given ethical ideals,—this whole conception of the moral world as such involves an entirely different point of view in presence of human experience. To conceive the “cosmical process” as such, you have to conceive it as in every detail subject to laws,—viz., to precisely the cosmical laws. But you can well view the facts in the light of a moral ideal, while believing that the now existent physical facts run in some ways directly counter to the ideal. Yes, so to view the facts is inevitable whenever you have ideals. For you derive your ideals, ultimately, from an aspect of your experience which has not to do with describing experienced facts, but with desiring ideal objects that are absent when you desire them. It is true that what you rationally desire, you can in general both describe and hope, with the aid of a possible good fortune, some time either to verify yourself, or to view as verifiable by somebody else, in whose interest you desire this object. But you do not desire the object *in so far as* it is describable. And furthermore, just in so far as you desire any object, its presence is not yet verifiable. One desires the absent. The cosmical fact,—*i.e.*, the physical fact, viewed

as subject to natural law, is, then, an object in so far as it is *both* describable *and* verifiable. The object of our ideal is desirable *not* in so far as it is describable, and, again, *precisely in so far as it is not* yet verifiable. Herein, then, lies a double contrast between the natural fact as such, and the object of desire, as such. The contrast comes out well in case of future facts. The future eclipse, as natural phenomenon, is but an incident in the vast describable whole fact called the process of the solar system. As such, the eclipse can be predicted as something necessary, because this process, as a whole, is conceived as one describable in terms of known and universal law. The eclipse is also verifiable, at the time of its occurrence, by all rightly situated observers. But so far the eclipse is no object of desire. Desire is as vain as would be prayer. The eclipse is to be verified only at the computed time, but then it *must* be verifiable. Science does not aim at the eclipse, nor does she pray for the eclipse. She predicts, verifies, reports, records,—all in due season. But the eclipse is not only natural fact, but interesting experience in the lives of the men who come to see it. *In so far*, one can desire to live to see the eclipse, can make an ideal of being present when it occurs, etc. But in desiring the experience, one does not compute the eclipse, nor does one verify the computation. One desires the eclipse in so far as one still expects but cannot yet verify its coming. And to desire to see the eclipse is simply not to compute its coming, but just to make this sight as such an ideal, and not to view the eclipse itself as a cosmical fact.

In consequence, our present contrast might be stated thus: Phenomena are desired (or dreaded) precisely in so far as they appear to be *interestingly novel*. Novelty, then, is a *conditio sine qua non* of all ideal value when regarded from a temporal point of view. But phenomena are explicable precisely in so far as they are conceived as *not* novel, but as mere cases under law. And again: The desired, or the dreaded, must be, as such, *now* unverifiable. But the explained is known to be such precisely in so far as universal explanations are actually verified. When I recognize something as a case of a "cosmical process," my recognition, as such, involves therefore no desire. One may say, indeed, that the actual can be approved, as conforming to an ideal standard. But, for us mortals, this approval, whenever desires are concerned (and a purely contemplative, æsthetic approval concerns us not here), is the approval of the fact in so far as it *has been* desired. In brief,

then, the explained or necessary phenomenon of the "cosmical process" is such in so far as it embodies the universal law in a specific case. But the object of desire is such in so far as the law or rule which this desire involves has not yet been embodied in the precise sense in which it here needs to be embodied.

Here is the root of the endless conflict between the ethical view of the world and the explanatory or "scientific" view. For a rational ethical doctrine is simply some universalized system of desires. What the right system may be concerns us not here. Enough if one has an ideal, he bases it on some type of desire. If nothing were desirable, there would be no ideals. A man with an ethical doctrine has simply taught himself what he now thinks to be wisely desirable. But he still desires. Thus desiring, he looks out upon experience. There occur phenomena. These his science "apperceives," recognizes, describes as cases of law, explains, calls necessary. But the very nature of this explanatory or descriptive sort of consciousness is that it says, "these phenomena are not novel." The consciousness of the possessor of ideals, however, essentially asserts, at every breath one draws, "Yet the novel, in so far as it justly appears novel, is precisely what I want." The explaining consciousness insists: "The law is eternally realized. What has been will be. There seems to be alteration. There is none." The ethical consciousness retorts: "The law is not yet realized. In this 'not yet' is my life. I have no abiding city. I seek one out of sight." Meanwhile, of course, it is perfectly possible to point out common territory, where these two views seem to meet without direct conflict. "You must use my insight," says the explaining consciousness, "if you want to realize your ideals. In vain do you desire as ideal what my laws forbid as forever unverifiable." The ethical consciousness must accept this inevitable comment. But it still responds: "Whatever laws of yours I recognize, they become to me not my ideals, but the mere material for realizing my ideals. If I could not interfere with the phenomenal expression that your laws are to get, my work would be utterly vain. You point me the means. But I set the goal. I do not quarrel with your laws. But I use them."

Hereupon, of course, the explaining consciousness makes one retort which does, indeed, appear to be crushing. "Realize your ideals if you will and can," it says; "yet what is your realization but a mere incident of my cosmical process? Your realization, when it comes, will be a natural phenomenon, a part of a whole

fact, like the rest. I shall explain this phenomenon, and show, whenever it happens, that it is nothing new." To this, of course, the ethical consciousness may make either one of two responses. It may say: "Granted. As a fact, I admit that you are right. My realization of my ideals will itself be only a nature-process, involving no true novelty. I admit that my view is, in the last analysis, illusory. 'Nature is made better by no mean, but nature makes that mean,' just as Mr. Herbert Spencer quotes. Nothing really new ever happens. Hence no ideals, viewed *as* ideals, ever do realize themselves, any more than eclipses come because we hope for them. But still our human experience has its limitations. Some events seem novel. Some desires seem, as such, productive of what nature did not before contain. As a fact, the 'star-mist' contained everything,—good, evil, possible, necessary. But '*Der Mensch, der bewegliche Fühlende, der leichte Raub des mächtigen Augenblicks*,' feels the thing otherwise. I view the world as it seems to active beings; and so I *must* view the world. Hence you have the truth; but I, as practical common sense, must live in my necessary illusions; and it is in *this* sense that I remain forever in opposition to you,—viz., just as an inevitable, if illusory, point of view."

This is what the ethical consciousness *may* say; and it is saying this which, to follow out to their just consequences the views of many writers, ought to constitute what such writers should consistently regard as the true "philosophy of evolution." The real world, thus viewed, is one of rigid cosmical law. In such a world, nothing essentially new ever happens. If we, as scientific observers, could come to comprehend this truth, we should no more talk of a genuine realization of ideals before unrealized in the universe, than we should regard the swing of a pendulum as a dramatic action. The pendulum bob, in its regular vibration, rises and falls, moves right and moves left, moves swiftly and moves slowly; yet all the time engages in but one describable cosmical process, which involves nothing novel at any point. So with the cosmical process in its wholeness. New passions and desires, as well as their significant potency in transforming the world, are and must be illusions, if describable natural law, as such, is universal. From this conclusion there can be no possible escape. For to explain is to see the apparently novel, in all its essential details, as an instance of the old, whose former type is, down to the least genuinely true element, merely exemplified once more in this seemingly novel situation. Either, then, desires, passions, ideals, are not subject

to the laws of the describable and necessary cosmical processes, or else they, if mere incidents of a describable process, are nothing new, and bring to pass nothing new, in all the universe. What has been will be. There is, then, nothing truly ethical. There is only the cosmical. This, I say, is the only possible "philosophy of evolution," if natural law is an account of the absolutely real world. Evolution, as a process, is in that case the mere appearance of novelties to unwary or to necessarily ignorant observers. It does not and cannot involve anything truly historical. But meanwhile, of course, the philosophical evolutionist of this type could make practical concessions, to his public, to himself, and to the ethical consciousness, so long as he did not forget that these concessions were such,—mere accommodations to human ignorance and to the practical point of view. He could say, "A portion of the cosmical process,—namely, our own voluntary activity, appears as if it were ethical,—*i. e.*, as if true novelty, genuine progress, effective ideals, historically significant passage to something never before realized, were there present." This illusion is human, inevitable, and even useful. When we write on ethics we have to treat this illusion as if it were true; and to do so is as harmless as to speak of the sunrise, remembering all the while the cosmical truth.

Such ethically disposed, but consistent, partisans of natural necessity ought, however, still to admit that the ethical process, when thus abstractly sundered from the cosmical process, of which it is all the while held to be a part, does indeed appear in very sharp contrast to the rest of the cosmical process. In the ethical world, illusory as it is here said to be, it still seems true that the pendulums do not merely swing, that the old does not merely recur, that the creation moves towards some far-off event, divine or diabolical. One now has to talk (although such speech is by hypothesis, but illusory) of progress, which means novel good entering a world that has thus far lacked its presence. One has to treat nature as if she could be made better. One looks to the future with hopes which, for many evolutionists, become rather sentimental. And to do this is to abstract from the fact that the "star-mist" contained it all, and that nothing essentially novel occurs, or will ever occur. But the abstraction is in sharp contrast to the supposed truth. The ethical world is, when conceived, in vehement, even if in illusory, opposition to the natural process; and Professor Huxley's discussion will have done great good, in so far as it leads to the recognition of this inevitable fact. How one states the details of the

opposition is of small consequence. The opposition itself is deep and universal.

But the ethical consciousness might decline thus to abandon its assertions. It might say, "But, after all, my view is right. I not merely, in the seeming of my ideals, contrast my illusions with a supposed truth, but I rightly, and in the name of truth, oppose my view of the real world to any physical view. After all, does experience prove the real universality of the 'cosmical process'? Certainly, experience, as such, does not. That nothing new occurs is a proposition directly opposed to the seeming of every individual experience. Why may not this seeming be well founded? Why may there not be true novelties, effective ideals, genuine progress, transformations, evolution which is not a mere seeming of growth, spiritual processes which were not present in the star-mist in any form?"

To these queries would, of course, come the reply: "Supernaturalism, this,—base supernaturalism." "But, no," one might retort; "not what that word usually suggests to some people, but merely what Kantian idealism long ago made familiar, and distinguished from all *Schwärmerei*,—this alone is what we mean."

As a fact, the assertion of the universality of the rigid cosmical process, and of what I have elsewhere called the reality of the "World of Description," is unquestionably a human, and, as I myself should affirm, a distinctly social theory for the interpretation of one aspect of our experience. Take human experience from that special point of view, and *then*, indeed, you have to conceive the world of experience *as if it were known to be* one of cosmical processes, which are the same yesterday, to-day, and forever. In that world, the only philosophy of evolution is that all evolution is to be called appearance. The only ethical process observable is one which is to be received as unreal. There is no question of warring against the cosmical process. But there is question of an undying opposition between the inevitable but illusory ethical consciousness and the hypothetically true cosmical consciousness; for the one forever looks to the future for the novel, the coming, *das werdende*, conceived as the possibly progressive; the other knows that all *Werden* only manifests the changeless truth of the cosmical process itself.

But now, the other view of human experience, the one which regards the universe as what I have elsewhere called "The World of Appreciation," is, as a fact, equally true to experience, and

equally inevitable. For nature we know, as a fact, only through our social consciousness,* and the social consciousness is ethical before it is physical, appreciates more deeply than it describes, recognizes nature for reasons which are, in the last analysis, themselves ideal, and is conscious of novelty, of progress, of significance, in general of the human, in ways which, in the last analysis, make the whole cosmical process a mere appearance of one aspect of the moral world. Yet this doctrine is not "supernaturalism," because the true opponent of the natural is not the "supernatural," but the human. The "cosmos" in the sense of empirical science is a conceptual product of the human mind. Man is indeed but a fragment of the absolutely real universe. But that genuine universe of which he is a fragment is not the world of description, but the world of appreciation,—a world at which the phenomena of nature indeed richly hint, but which they do not reveal.

It is true that, when viewed in the light of such a doctrine, the facts of evolution get an interpretation, not here to be expounded, which does away with much of the opposition between the ethical and what had seemed the cosmical, in the sense in which we have so far used that word in this paper. And it is true, I think, that the reconciliation in question would contain and accept most of the positive considerations which Dr. White's paper has so well expounded. Meanwhile, I should still hold that, as points of view, the view for which the ethical process exists at all is very sharply opposed to the view which, in the sense of physical science, deals with cosmical processes as such. Call the whole matter one of phenomena and of human opinion, and then indeed this opposition need lead to no misunderstandings. It will then be *merely* one of points of view, no assertions of ultimate truth being made on either side. But if it be a question of a philosophy of reality, then one must choose between the two points of view, or else reject both. There is no chance of reconciling the metaphysically real and ultimate universality of the so-called cosmical, *i.e.*, physical processes, or processes according to descriptably rigid laws, with any even remotely ethical interpretation of the same reality.

The questions asked at the outset are then to be decided thus : (1) Conceive the "cosmical process" as one of descriptably rigid law, as all explanation in natural science does, must do, and ought

* I may be allowed to refer again to the before-mentioned paper in the *Philosophical Review*.

to do, and *then* the "ethical process" can form no part of the "cosmical process." (2) In essence the "ethical process," in so far as you conceive its presence at all, is utterly opposed to all "cosmical processes" when they are thus physically conceived. (3) The nature of the opposition lies not in any world of "things in themselves" at all, but in the peculiarity of the ethical point of view which, in dealing, as both this view and its rival concretely do, with mere human appearances, estimates ideally, and desires essential novelty, progress, and the thus far unattained as such; while the descriptive or explanatory point of view conceives its purely phenomenal world as if it were known to contain no novelties whatever, and nothing ideal.

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GEORG VON GIZYCKI AND THE SCIENCE OF ETHICS.

[NOTE.—Just after the last number went to press, we learned with deep regret of the death of the Berlin member of our Editorial Committee, Professor Georg von Gizycki, who has been an active supporter of this JOURNAL from the first, and a frequent contributor to its pages. We had hoped to have an account of Professor Gizycki's life and work for this number from one of his colleagues in the University of Berlin, but are obliged to go to press without it. Our own acquaintance with Professor Gizycki, which was mainly through correspondence, dates back to the winter of 1881-82. Though he was then quite young, we were impressed with his vigor of thought and moral earnestness, and his frank and genial nature attracted us to him personally. This was emphasized all the more by the fact that he was a cripple for life, and had to be wheeled in a chair each day to the University, and carried bodily by his attendant to the lecture-room. There was a striking contrast between his unfortunate physical condition and his hopeful rationalistic philosophy of life. His lectures were not largely attended at that time ('81-'82), but he had already gained some distinction as a writer on ethics. His work on Shaftesbury we heard highly praised by Professor Zeller in a lecture on modern ethics before several hundred students.

Besides publishing several ethical works and giving regularly his University lectures, Professor Gizycki had been editing for two or three years a weekly paper, *Ethische Kultur*, devoted to the interests of the recently-organized Ethical Movement in Germany, of which he was one of the foremost promoters and leaders. His untimely death at the age of forty-four is to be lamented, and the INTERNATIONAL JOURNAL OF ETHICS, to which he gave much faithful service, offers a grateful tribute to his memory.